

Readiness Of Community Participation On Household Waste Management at Cililitan, Kramat Jati, East Jakarta

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Abstract— Based on the primary survey, the knowledge, the attitude and the behavior on household waste management at Cililitan was well adequate but there are still residents who have not managed household waste properly. Infrastructure, community, and organization readiness are important in making sustainable waste management. This study aims to analyze readiness community participation on household waste management at Cililitan. This was a qualitative research which used chair- men of the community organization as the sample. Data were collected by in-depth inter- views, FGD and analyzed by content analysis. The results showed that the readiness of com- munity participation in waste management from organizational aspects was still inadequate due to the absence of an independent team, coordi- nation forum, and training. The technical as- pects, waste sorting has not been carried out according to its type at the household scale. No further waste management such as composting has been carried out. The aspect of financing has a self-funded. The conclusion of this study is the readiness of community participation from organizational and technical aspects still needs to be improved. Suggestions in the fu- ture, the waste bank will be formed and training will be held so the community can manage household wasteindependently.

Keywords : Readiness, Community Participa- Tion, Household Waste Management

1. INTRODUCTION

Waste is the rest of human daily activi- ties and/or natural processes that are solid. Population growth and changes in community consumption patterns lead to increasingly di- verse volumes, types and characteristics of the waste. At present, especially in large cities, there is an increase in the waste dumps of 2- 4% annually. Based on *Statistik Lingkungan*.

Hidup data, estimates of waste production per day in DKI Jakarta are as much as 7,099.08 m³ in 2016.¹ Waste handling capacity carried out by the community and regional governments is not optimal. Waste that is not managed properly will affect the environment and the health of the sur- rounding community.² Moreover, if the waste is household waste containing hazardous and toxic materials (B3) such as batteries, electric lights, electronics, packaging of pesticides, clothes bleach, floor cleaners, paints, pressurized cans (aerosols), remnants of medicines, thermome- ters and syringes, it can potentially threatening human health and theenvironment.³

Garbage problems are not only ocured in big cities but also in other cities such as in Kediri. The Kediri government has been carrying out waste management efforts since 2008 by building community-based composter units. In reality, the community is not directly involved because they think waste management is only the responsibility of the government.⁴

To overcome the problem of waste, it is necessary to educate the citizens awareness and skills for waste management by applying the principles of reducing, reuse, recycle and replant (4R).⁵ Waste management with high success rate is focused on waste management in pro- cessing and reducing pollution and involving the community in its activities. Completion of waste problems must be carried out comprehensively from upstream to downstream and involves all parties so that waste management can be sus- tainable.⁶

Based on the initial survey, several neigh- borhood units in RW 15 Cililitan, were in a posi- tion flanked by two rivers, giving an opportunity for residents who were less aware of waste man- agement to dispose of their household waste into the river stream. As a result, it risks inhibit- ing river flows, causing flooding and giving bad impact on health. The results of preliminaryre- search in Cililitan, Kramat Jati, East Jakarta showed that the level of knowledge and attitude of household waste management in the area was good, but

residents' behavior was still found which did not reflect good waste management, for example not separating between organic and anorganic waste, have not done 3R, and other behaviors that have not shown the sustainability of waste management independently in the family environment. No matter how good and complete the government provides infrastructure for waste management, if public awareness and community readiness are lacking, then independent and sustainable waste management cannot be obtained. This gives an impact on health, environmental pollution, and socio-economic problems. Therefore, it is necessary to conduct a study of the readiness and participation of the community regarding the management of house- hold waste based on operational, institutional, financial, legal/regulatory aspects and the participation of the community.

2. MATERIALS AND METHOD

This research is qualitative research, where researchers explore information about the readiness of community participation in waste management from institutional and organizational aspects, laws and regulations, technical operations, aspects of financing and retribution and community participation. The sample was all neighborhood heads and the Head of *Lembaga Musyawarah Kelurahan* in RW 15, Cililitan, Kramat Jati, East Jakarta, with total 10 persons. Primary data is the readiness of community participation in waste management, and the secondary data are documents related to waste management in Cililitan Village and DKI Jakarta Regional Regulation No. 3 of 2013 concerning Waste Management. Data were collected by in-depth interview, Focus Group Discussion and analyzed with content analysis.

3. RESULTS AND DISCUSSION

Solid waste management is a main environmental problem in many urban areas of developing countries. It is a multidimensional issue, which requires the active participation of all relevant stakeholders including the City Board Management, civil society, NGOs, CBOs, waste private collectors, and entrepreneurs. Increased funding to build capacity and expertise, public awareness and community sensitization and investment in appropriate infrastructure and technologies will aid in improving the waste management.⁷

Even though the government has made regulations on waste management, the majority of people do not practice waste management.⁸ Most of the local governments handle their solid waste just by collecting, transporting and dumping to landfill. Currently, reduce, reuse and recycle (3R) activities are not optimally practiced.⁹ This was also happened in RW 15, Cililitan, East Jakarta. Knowledge and attitudes of citizens about waste management are well adequate, but the practice of waste management is inappropriate. There are only collecting, transporting and disposing to landfills. The 3R (reuse, reduce, recycle) practice has not been implemented in the urban village. Recycling has a positive impact on improving overall social, economic and environmental sustainability of the waste management system.¹⁰ Recyclable waste and that a well-coordinated recycling program will not only ensure a huge reduction of waste volume but can equally lengthen the life of existing dumpsites and possibly, escalate income and alleviate poverty.^{11,12}

Garbage will become a major problem and continue to grow every day if waste management relies solely on Final Disposal Sites (*TPA*) without the introduction of processes such as reducing waste production or sorting waste before disposal. This situation causes landfill to be full quickly and is less effective in the long term because the availability of landfill is increasingly limited.¹³ The lack of waste management is very detrimental to the environment and impact seriously the public health.¹⁴ In order to overcome these problems the best option would be to implement sustainable solid waste management programs based on socioeconomic, environmental, and technical issues.^{15,16}

Factors that can influence the sustainability of sustainable waste are the behavior of sorting waste, the behavior of 3R and the difficulty of managing waste.¹⁷ The driving factors that play a role in the sustainability of waste management include the role of community leaders, economic benefits, social benefits, environmental benefits, waste management networks, and stimulation and facilitation of local governments.¹⁸

Garbage is a complex problem for big cities in Indonesia. The government had enacted regulations to reduce the amount of plastic use, one of which was to impose fees for the use of plastic bags in supermarkets. But this program only runs short, because people still choose to pay for and use plastic bags

rather than carrying shopping bags from home. The DKI Jakarta Government itself has *Pasukan Orange*, namely casual daily workers of the *Unit Pengelola Kebersihan (UPK)* of the *Badan Air* of the DKI Jakarta Sanitation Department which is responsible for cleaning garbage in the river. The Bandung government also has a program with the formation of *Tim Guber* that serve at the smallest level in the hamlet and urban village. The task of the *Tim Guber* is to clean up trash and culverts in each area of the Community and Village Unit.¹⁹ However, the existence of the *Pasukan Orange* and *Tim Guber* have reduced the role of the community to some extent. In fact, the problem of waste requires community involvement because the problem of garbage is a social problem.

To reduce trash to be managed and encourage the active involvement of the community,^{20,21,22,23} Reflect the mindset shift in the body the government about the waste management as well as the awareness on the role of an interaction between the government and the community in it.^{20,24,5} The community empowerment must be increased.²⁰

A community-based approach is recognized as a solution alternative effective for various problems faced by the government in managing regions. Greater involvement public participation directly to solve the problem can be used to face the sustainable as waste management. Therefore, the community's readiness and participation in waste management is needed starting from the family level.

The readiness of the role of the community in Cililitan, East Jakarta in waste management from the institutional and organizational aspects still needs to be improved. The person in charge of waste management is still centered in the government, thus far the involvement of the community and the private sector in waste management is still lacking. There are no community institutions that responsible for waste management from settlements to polling stations. Waste management at this level is left to cleaners who are paid monthly, who are in charge of transporting waste from settlements to polling stations. Besides, the city government manages waste management from TPS to TPA. The performance of waste management has never been evaluated. The coordination forum for waste management has not been carried out to the maximum. Starting from a number of neighborhood units (*RT*) there is only one neighborhood unit that has coordinated the waste management carried out by youth organizations in 2017 and there is no sustainability in the following year. Further more, there is no improved quality of human resources in the form of technical training, which is not been carried out seriously.

Waste management in DKI Jakarta from the legal and regulatory aspects has been regulated in the DKI Jakarta Provincial Regulation No. 3 of 2013 concerning Waste Management. These regulations include regulating duties and authority, rights and obligations, including the rights and obligations of the community regarding waste management, managing waste management, infrastructure and facilities, managing institutions, janitors, waste-free areas, licensing, incentives and disincentives, cooperation and partnerships, pollution and contribution fees, development and application of technology, data and information on waste management, guidance and supervision, funding and compensation as well as the active role of the community, but so far there has not been strict legal sanctions applied to people who do not comply with the law.

Waste management from operational technical aspects is still not optimal. The pattern of waste management in Cililitan, East Jakarta is an individual pattern not directly from the house to house, where officers take garbage to each house. Sorting activities and 3R in this region have not been implemented properly. The community only has one garbage container per house and has not made any sort of separation between organic and inorganic waste. Apart from not sorting waste, the community has not yet recycled such as composting for organic waste.

The financing aspect in Cililitan, East Jakarta has been running as it should. Funding for waste management from settlements to TPS comes from community contributions. The amount of garbage fees has been agreed upon by the residents and determined by the Chairperson of the RW at 20,000 rupiah per month. In accordance, the financing of waste management from TPS to TPA comes from levies based on Regional Regulation. The Regional Government provides assistance in the form of waste processing facilities such as carts as a means of transporting garbage from settlements to polling stations.

Aspects of community participation in waste management at Cililitan need to be improved. Since garbage is a social issue and the role of the community is still limited, therefore it must be solved not only the government, but by all parties. The participation of the community in management can be done by

increasing capacity, independence, empowerment and partnership in waste management; develop community leadership in waste processing; submit information, reports, suggestions and or criticisms relating to waste management. If the community consciously has responsibilities related to waste management, the waste problem will be handled properly. One form of community pioneering in waste management is forming a waste management institution. The existence of a waste management institution formed independently by the community is able to increase the involvement and responsibility of the community in managing waste generated from the household. One of the factors that have caused the maximum waste management is due to the unavailability of institutions that manage waste problems from the provincial waste urban village level.²⁶ Therefore it is necessary to create a team or institution that manages waste starting from the urban village level, for example, a waste bank.

The waste bank is a community-based activity that is one of the solutions to reduce waste generation whose existence is greatly influenced by movers, initiators, and contributors who are willing to provide time, energy and thought to carry out waste bank activities.²⁷

Based on the result, in the future, the community will be fostered and directed to form a waste bank, so that waste management in this area can be carried out sustainable and independently. Besides being formed a waste bank, recycling training will also be conducted. Therefore, the trash that previously has no selling value can have economic value and improve community finances.

4. CONCLUSION

The conclusion of this study is that the readiness of the participation of the community from the aspects of institutions and organizations needs to be improved, for example by forming a waste management institution independently by the community such as a waste bank. Legal and regulatory aspects have been regulated in DKI Jakarta Regulation No. 3 of 2013, but strict sanctions need to be applied for people who do not comply with this regulation. Waste management from the operational technical aspects needs to be improved by starting waste sorting and conducting 3R activities at the household level. The financing aspect in the Cililitan is optimal, the community and the government have contributed to each of these aspects. Another important thing that must be improved is the participation of the community in waste management. The community must be actively involved in overcoming the problem of waste in their environment.

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